MANO120

AMD G-Series T56N 1.65GHz APU

With A55E Controller Hub (FCH) Mini-ITX Motherboard

User's Manual

Contents

▪ Safety Information

Electrical safety

- To prevent electrical shock hazard, disconnect the power cable from the electrical outlet before relocating the system.
- When adding or removing devices to or from the system, ensure that the power cables for the devices are unplugged before the signal cables are connected. If possible, disconnect all power cables from the existing system before you add a device.
- Before connecting or removing signal cables from the motherboard, ensure that all power cables are unplugged.
- Seek professional assistance before using an adapter or extension cord. These devices could interrupt the grounding circuit.
- Make sure that your power supply is set to the correct voltage in your area. If you are not sure about the voltage of the electrical outlet you are using, contact your local power company.
- If the power supply is broken, do not try to fix it by yourself. Contact a qualified service technician or your retailer.

Operation safety

- Before installing the motherboard and adding devices on it, carefully read all the manuals that came with the package.
- Before using the product, make sure all cables are correctly connected and the power cables are not damaged. If you detect any damage, contact your dealer immediately.
- To avoid short circuits, keep paper clips, screws, and staples away from connectors, slots, sockets and circuitry.
- Avoid dust, humidity, and temperature extremes. Do not place the product in any area where it may become wet.
- Place the product on a stable surface.
- If you encounter technical problems with the product, contact a qualified service technician or your retailer.



The symbol of the crossed out wheeled bin indicates that the product (Electrical and electronic equipment) should not be placed in municipal waste. Check local regulations for disposal of electronic products.

Technical Support

If a problem arises with your system and no solution can be obtained from the user's manual, please contact your place of purchase or local distributor. Alternatively, please try the following help resources for further guidance. Visit the Axiomtek website for FAQ, technical guide, BIOS updates, driver updates, and other information:

http://www.axiomtek.com

Conventions Used in This Guide

To make sure that you perform certain tasks properly, take note of the following symbols used throughout this manual.



DANGER/WARNING: Information to prevent injury to yourself when trying to complete a task.



CAUTION: Information to prevent damage to the components when trying to complete a task.



IMPORTANT: Instructions that you MUST follow to complete a task.



NOTE: Tips and additional information to help you complete a task.

Packing List

Before you begin installing your single board, please make sure that the following materials have been shipped:

- ✓ 1 x MANO120 Mini ITX Main board
- ✓ 1 x CD-ROM contains the followings:
  - User's manual (this manual in PDF file)
  - Drivers
- ✓ 1 x I/O Shield
- ✓ 1 x CPU Cooler
- ✓ 1 x SATA cable

If any of the above items is damaged or missing, please contact your retailer.

Revision History

Revision	Revision History	Date
V 1.0	First release	2012/3/5

Specifications Summary

APU	G-Series
APU Type	AMD G-Series T56N 1.65GHz DC
Processor Family	AMD G-Series
Long Life Processor List	TDP 18W, T shutdown 125℃
Package	FT1 (BGA) 413 balls p=0.8mm, 19x19 mm
L2 Cache	L1: 32KB+32KB per core, L2: 512KB cache per core
UMI	4-Lane(x4) PCIe gen2
Power Management	C6 supported
PCIE	4-Lane(x4) PCIe gen2
CPU Process	40 nm

Memory

System Memory	
Memory Type	One DDR3 1066/1333 SODIMM
DIMM #	1x SODIMM 204Pin/ Single Channel
Max. Capacity	4 GB

Chipset

FCH	
Fusion Controller Hub	AMD A55E Controller Hub (Hudson-E1)
PCIe	x4 Gen 2
USB	8 USB 2.0 (4 Rear, 4 Internal)
SMBus	Yes
LPC	Yes
SATA	5 SATA 3.0 (One support SATADOM)
HD Audio	support 4 channel, Power Saving, 4 codec
Clock Gen.	Integrated
Package	FCBGA 23x23mm, 605 balls
Environment	TDP 2.7~5.7W, T case 105℃
Display	
Integrated Graphic Controller	AMD Radeon HD 6320(T56N)
HW decoder/3D feature	DirectX 11, OpenGL4.0, dedicated HW(UVD3.0)for H.264, VC-1, MPEG-2, DivX decode
LVDS	1, 18bpp (Single link LVDS up to 1400 x 1050)
VGA	T56N (18W) supports up to 2560 x 1600
HDMI	1 support HDMI 1.3a & 1080p up to 1920 x 1080
Dual Display	VGA+LVDS, VGA+HDMI, HDMI+LVDS

BIOS

BIOS Core	
BIOS Core	AMI EFI
BIOS Flash	
BIOS Flash	16Mb SPI
SW RAID	
SW RAID	None
Boot up Device	—
Serial ATA	Yes (CFast)
IDE device	N/A
USB device	Yes
Boot from LAN	Yes
Power Management	—
ACPI	ACPI 3.0
APM	NA
Sleep State	S3, S4, S5
Other Feature	
PC Health	YES
CMOS backup	BIOS CMOS automatic backup and restore setup data
Smart FAN	CPU, SYS FAN, Smart Fan III+
Graphics memory mode	Shared Memory up to 2GB
Power Play	380, 200MHz, configure Power to 2.7~5.7W
SATA	Support SATA III(6Gbps)

Internal Connector

Debug Port	
CPU	HDT header
SPI	1
Display	
LVDS	1
esp.	1,　(optional)
Inverter	
LVDS INV	1, 3.3 V

Audio	
Front Panel	1
Amplifier	1
SPDI/F	1
USB	
USB	4
Serial	
COM	2
IDE	
IDE	NA
SATA	
SATA	5 (SATA III 6 Gb/s)
SATA power	NA
Fan connector	
System fan connector	1 system fan(3pin for system with smart fan control)
CPU fan connector	1 CPU fan(3pin for system with smart fan control)

Audio	
Phone Jack	1 Line-out 1 MIC co-lay 1 jack connector

Power

Power Connector	
Power Type	AT/ATX
Power Requirement	+3.3V, +5V, +12V, -12V, 5Vsb

GPIO	
General	8bit

Front I/O

Display	
HDMI	1
VGA	1, co-layout with header
DVI	NA
Ethernet	
RJ-45	2, stack with USB
USB	
USB	4 (USB 2.0 port)
COM	
Serial port	2* RS-232
PS/2	
KB/MS	2, co-lay single DIN

LED Indicator

LED	
HDD Status	4; alive, green; dead, red 4; access, flash yellow
Power on rear IO	1; Blue

Expansion Slot

Expansion Slot	
Mini-PCI Express	1
PCIex 4	1

PCB Physical Feature	
Dimension	170x 170mm
Layer	6 Layer
Power Consumption	< 45W
Operating Temperature	0℃-60℃
Heat Sink	Cooler FAN
Storage Temperature	-20℃ ~ 80℃
Vibration (non OP)	3.0 Germs, heat sink backplane TBD

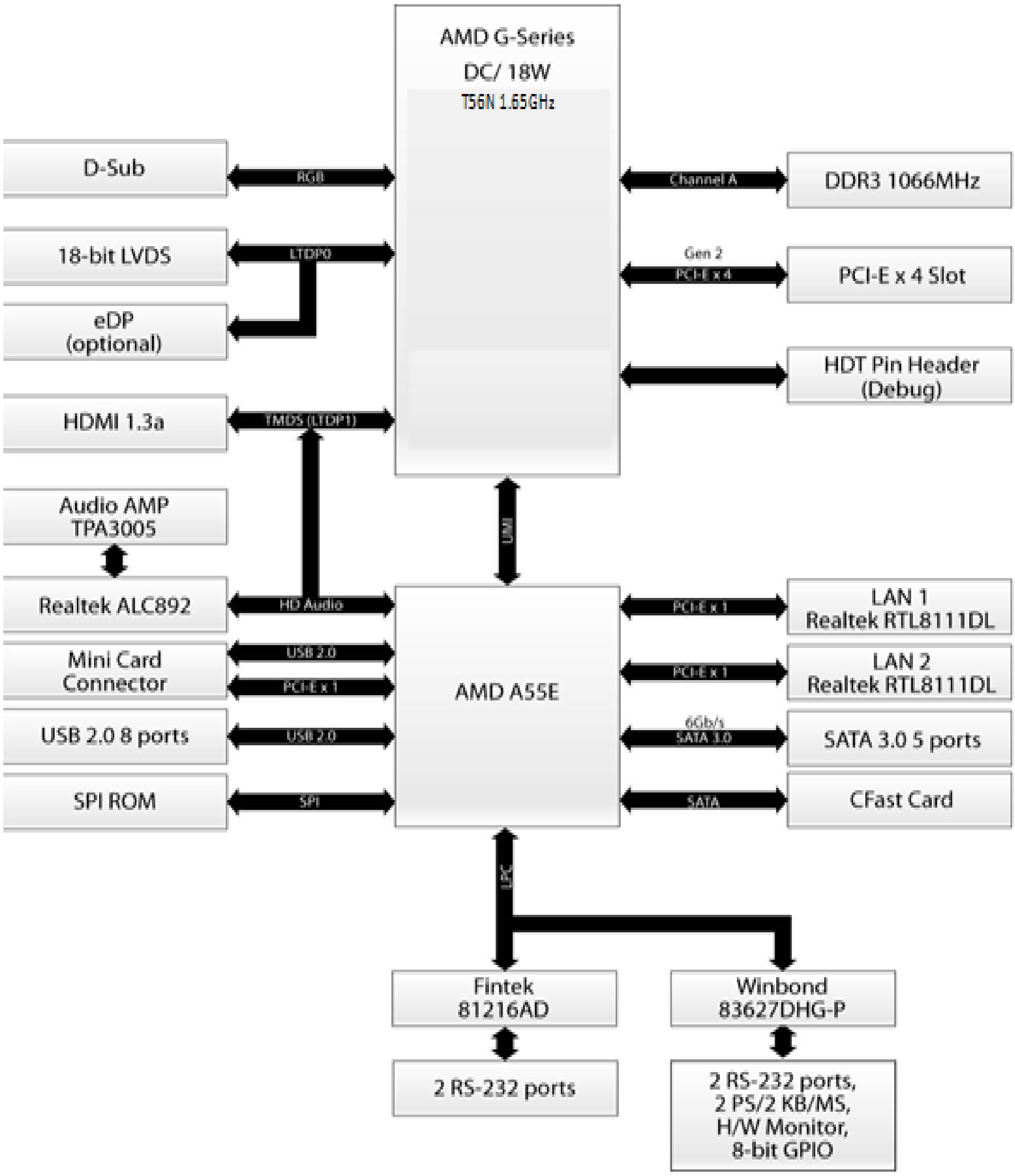
Accessory

Accessory List	
FP_USB cable	None
SATA cable Kit	1 data and 1 power
Serial Port	2
I/O Shield	1
Driver CD	1
Startup Manual	1
FP_Power button, power LED, HDD LED kit	None

AVL	
OS Support List	Windows XP SP3, Windows 7 Pro, Linux Fedora 14

PCB Printing	
Model name in silkscreen	None
Revision in silkscreen	No
PCB Color	Blue
CE mark on PCB	Yes
WEEE	Yes
axiomtek PCB part number	Yes
Version	No
FCC mark on PCB	Yes
Cert. Compliance	
CE	Pre-scan for Class B, EN-55022/24
FCC	Pre-scan for FCC PART 15, Class B
IEC-60601	compliance

Block Diagram



This chapter describes the main board features and the new technologies it supports

CHAPTER 1

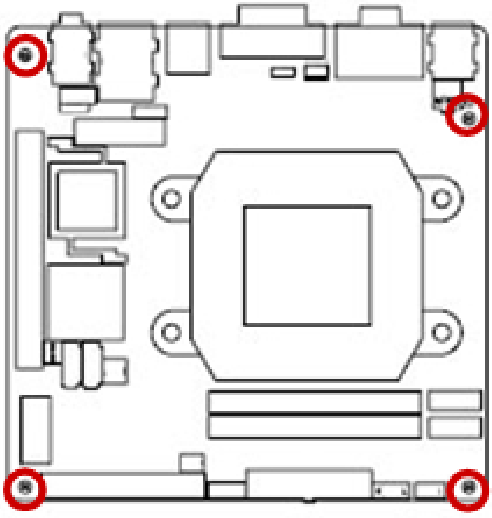
INTRODUCTION

1.1 Before you proceed

Take note of the following precautions before you install motherboard components or change any motherboard settings.



- Unplug the power cord from the wall socket before touching any component.
- Use a grounded wrist strap or touch a safely grounded object or a metal object, such as the power supply case, before handling components to avoid damaging them due to static electricity
- Hold components by the edges to avoid touching the ICs on them.
- Whenever you uninstall any component, place it on a grounded antistatic pad or in the bag that came with the component.
- Before you install or remove any component, ensure that the ATX power supply is switched off or the power cord is detached from the power supply. Failure to do so may cause severe damage to the motherboard, peripherals, and/or components.



Place this side towards the rear of the chassis

1.2 Motherboard Overview

Before you install the motherboard, study the configuration of your chassis to ensure that the motherboard fits into it. Refer to the chassis documentation before installing the motherboard.



Make sure to unplug the power cord before installing or removing the motherboard. Failure to do so can cause you physical injury and damage motherboard components.

1.2.1 Placement Direction

When installing the motherboard, make sure that you place it into the chassis in the correct orientation. The edge with external ports goes to the rear part of the chassis as indicated in the image below.

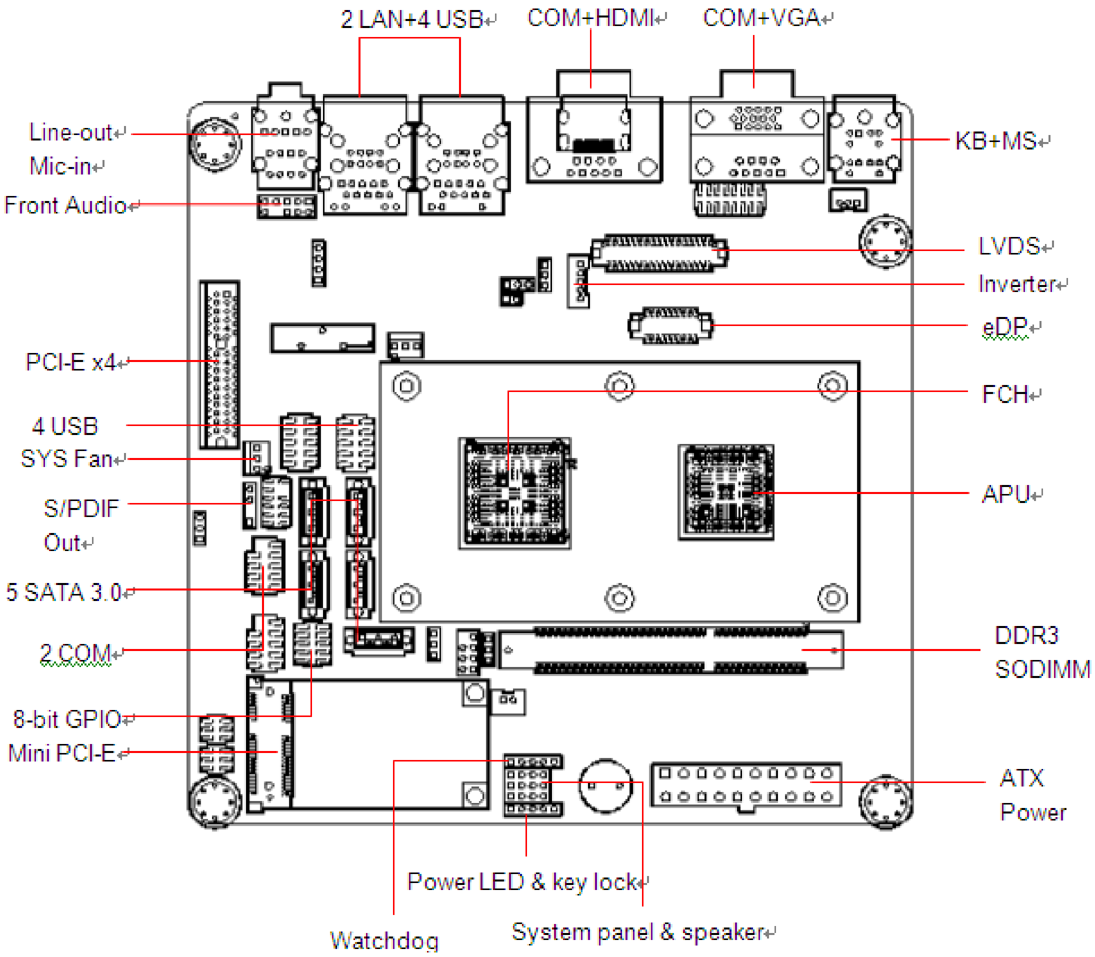
1.2.2 Screw Holes

Place four (4) screws into the holes indicated by circles to secure the motherboard to the chassis.



Do not over tighten the screws! Doing so can damage the motherboard.

1.3 Motherboard Layout



Layout Content List

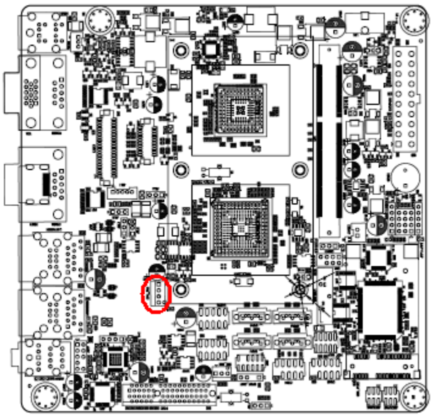
Slots		
Label	**Function**	**Note**
CFast	Compact Flash socket	Rear side
MINI_PCIE	Mini PCI-E slot	52PIN
PCIE	PCI E slot	64PIN
SODIMM_A1	204-PIN SODIMM slot 1	204-PIN

Jumpers		
Label	**Function**	**Note**
CLRTC	Clear CMOS1	3 x 1 header, pitch 2.54mm
JCOMPWR1	COM1 RI/+5V/+12V Selection	3 x 2 header, pitch 2.0mm
JCOMPWR2	COM2 RI/+5V/+12V Selection	3 x 2 header, pitch 2.0mm

Rear IO		
Label	**Function**	**Note**
KBMS	PS/2 keyboard and mouse	6-pin Mini-Din
COM12	Serial Port Connector	D-sub 9-pin, male
VGA_DVI	VGA Connector	D-sub 15-pin, female
USB1,2,3,4	USB Connector x 4	2 x 5 Header, pitch 2.54mm
LAN1,2	RJ-45 Ethernet Connector x 2	
AUDIO	Line-out Port, Microphone Port,	7.1 Channel Audio I/O (2 jacks)

1.4 Central Processing Unit (CPU)

1.4.1 Connect the CPU Fan cable to the CPU_FAN connector on the motherboard.



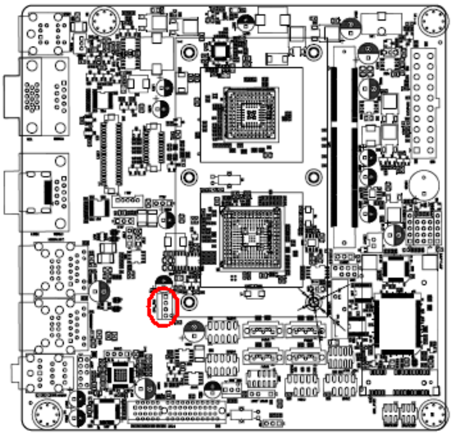


Do not forget to connect the CPU Fan connector! Hardware monitoring errors can occur if you fail to plug this connector.



After installation, make sure to plug-in the ATX power cable to the motherboard.

Connect the CPU fan cable to the CPU_FAN connector on the motherboard.

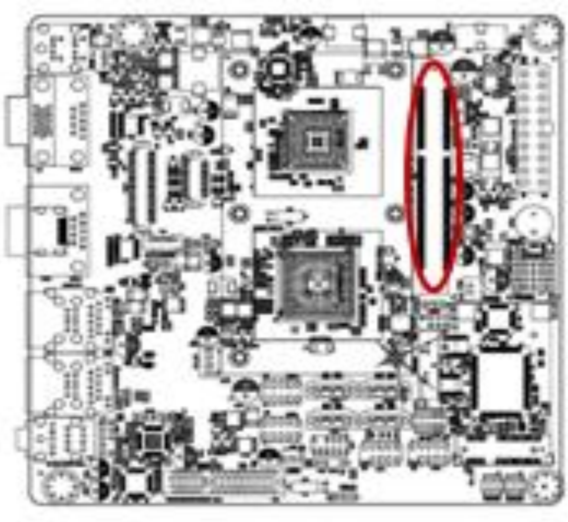


1.5 System Memory

1.5.1 DIMM Sockets Location

The motherboard comes with one 204-pin Double Data Rate 3 (DDR3) SODIMM sockets.

A DDR3 module has the same physical dimensions as a DDR DIMM but has a 204-pin footprint. DDR3 DIMMs are notched differently to prevent installation on a DDR DIMM socket. The following figure illustrates the location of the sockets:



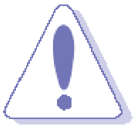
1.5.2 Memory Configurations

You can install 1GB, 2GB and 4GB DDR3 DIMMs into the SODIMM sockets using the memory configurations in this section.



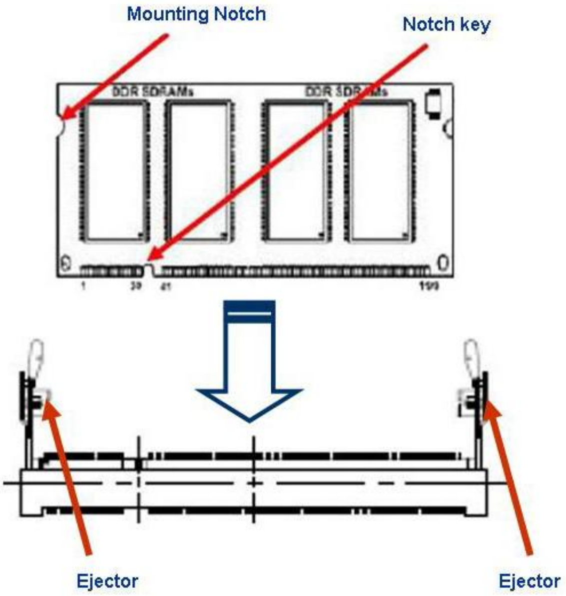
- Installing DDR3 DIMM other than the recommended configurations may cause memory sizing error or system boot failure. Use any of the recommended configurations.
- Always install DIMMs with the same CAS latency. For optimum compatibility, it is recommended that you obtain memory modules from the same vendor.
- This motherboard does not support memory modules made up of 128 Mb chips or double-sided x16 memory modules.
  Make sure that the memory frequency matches the CPU FSB (Front Side Bus). Refer to the Memory frequency/CPU FSB synchronization table.

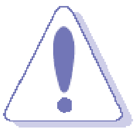
1.5.3 Installing a DDR3 DIMM



Make sure to unplug the power supply before adding or removing DIMMs or other system components. Failure to do so may cause severe damage to both the motherboard and the components.

1. Locate the DIMM socket on the board.
2. Hold two edges of the DIMM module carefully, and keep away of touching its connectors.
3. Align the notch key on the module with the rib on the slot.
4. Firmly press the modules into the socket automatically snaps into the mounting notch. Do not force the DIMM module in with extra force as the DIMM module only fit in one direction.

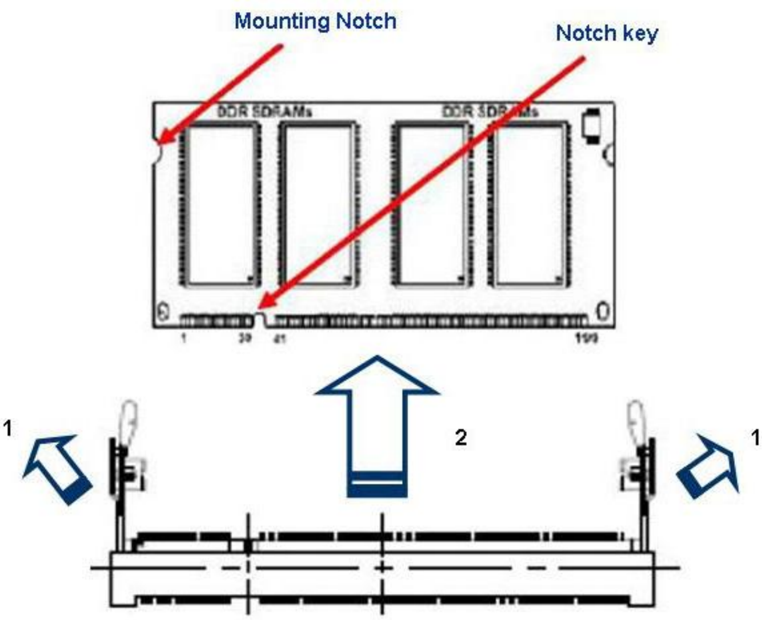




- A DDR3 DIMM is keyed with a notch so that it fits in only one direction. DO NOT force a DIMM into a socket to avoid damaging the DIMM.
- The DDR3 DIMM sockets do not support DDR DIMMs. DO NOT install DDR DIMMs to the DDR3 DIMM socket.

1.5.4 Removing a DDR3 DIMM

Press the two ejector tabs on the slot outward simultaneously, and then pull out the DIMM module.





Support the DIMM lightly with your fingers when pressing the ejector tabs. The DIMM might get damaged when it flips out with extra force.

1.6 Expansion Slots

In the future, you may need to install expansion cards. The following sub-sections describe the slots and the expansion cards that they support.

Make sure to unplug the power cord before adding or removing expansion cards. Failure to do so may cause you physical injury and damage motherboard components.

1.6.1 Installing an Expansion Card

1. Before installing the expansion card, read the documentation that came with it and make the necessary hardware settings for the card.
2. Remove the system unit cover (if your motherboard is already installed in a chassis).
3. Remove the bracket opposite the slot that you intend to use. Keep the screw for later use.
4. Align the card connector with the slot and press firmly until the card is completely seated on the slot.
5. Secure the card to the chassis with the screw you removed earlier.
6. Replace the system cover.

1.6.2 Configuring an Expansion Card

After installing the expansion card, configure it by adjusting the software settings.

1. Turn on the system and change the necessary BIOS settings if any.
2. Assign an IRQ to the card if needed. Refer to the tables on the next page.
3. Install the software drivers for the expansion card.

1.6.3 Standard Interrupt Assignments

* There IRQs are usually available for ISA or PCI device

IRQ	Priority	Standard Function
0	1	System Timer
1	2	Keyboard Controller
2	-	Redirect to IRQ#9
3	11	IRQ holder for PCI streering*
4	12	Communications Port (COM1)*
5	13	IRQ holder for PCI streering*
6	14	Floppy Disk Controller
7	15	Printer Port (LPT)*
8	3	System CMOS/Rear Time
9	4	IRQ holder for PCI streeing*
10	5	IRQ holder for PCI streeing*
11	6	IRQ holder for PCI streeing*
12	7	PS/2 Compatible Mouse Port*
13	8	Numeric Data Processor
14	9	Primary IDE Channel
15	10	Secondary IDE Channel

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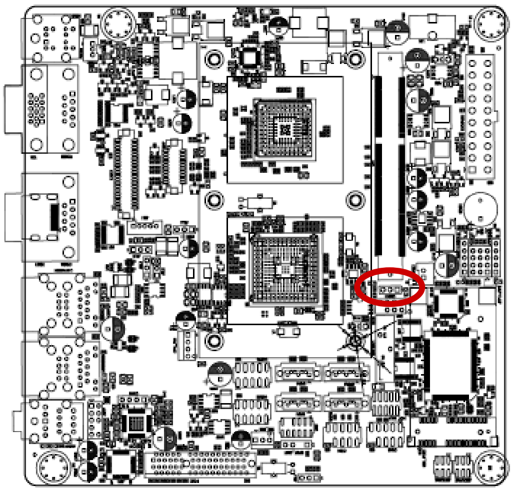
1.7 Jumpers

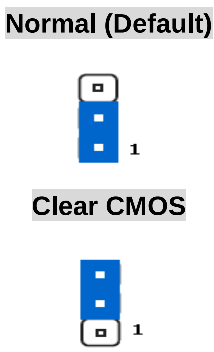
1.7.1 Clear CMOS (CMOS1)

This jumper allows you to clear the Real Time Clock (RTC) RAM in CMOS. You can clear the CMOS memory of date, time, and system setup parameters by erasing the CMOS RTC RAM data. The onboard button cell battery powers the RAM data in CMOS, which include system setup information such as system passwords. To erase the RTC RAM:

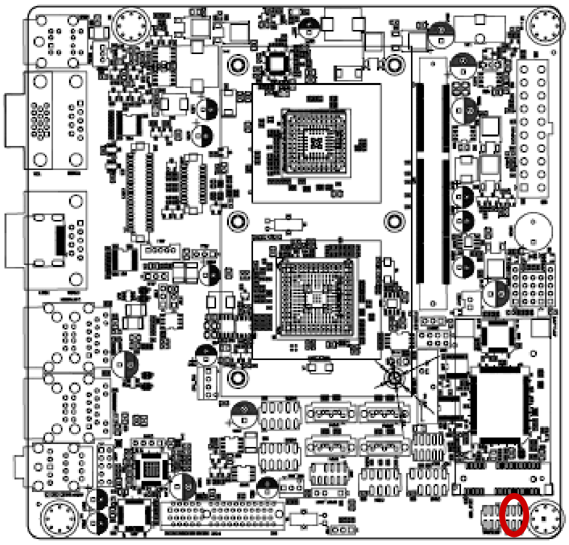
1. Turn OFF the computer and unplug the power cord.
2. Remove the onboard battery.
3. Move the jumper cap from pins 1-2 (default) to pins 2-3. Keep the cap on pins 2-3 for about 5~10 seconds, then move the cap back to pins 1-2.
4. Re-install the battery.
5. Plug the power cord and turn ON the computer.
6. Hold down the <Del> key during the boot process and enter BIOS setup to re-enter data.

Except when clearing the CMOS, never remove the cap on CLRTC jumper default position. Removing the cap will cause system boot failure!

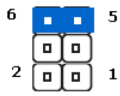




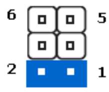
1.7.2 COM3 RI/+5V/+12V Selection (JSETCOM3)



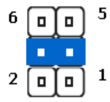
+5V (Default)



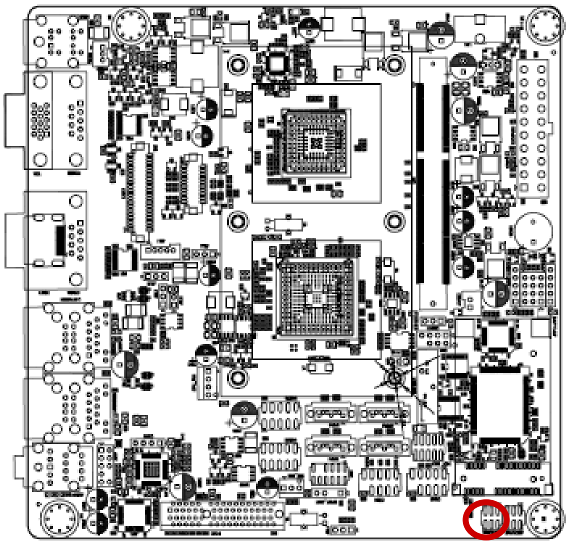
+12V



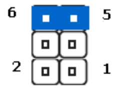
Ring



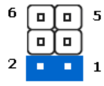
1.7.3 COM4 RI/+5V/+12V Selection (JSETCOM4)



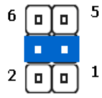
+5V (Default)



+12V

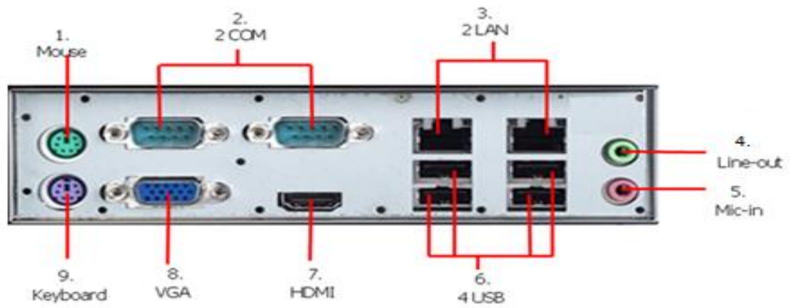


Ring



1.8 Connectors

1.8.1 Rear Panel Connectors



No	Label	Function	Description
1	KBMS	PS/2 mouse connector	The standard PS/2 mouse DIN connector is for a PS/2 mouse.
2	COM12	Serial port connector	D-Sub 9-pin, male
3	LAN_USB12	LAN (RJ-45) connector	This port allows Gigabit connection to a Local Area Network (LAN) through a network hub. Refer to the table below for the LAN port LED indications. The optional 10/100 Mbps LAN controller allows 10/100 Mbps connection to a Local Area Network (LAN) through a network hub.

ACT / LINK LED		SPEED LED	
Status	Description	Status	Description
OFF	No link	OFF	10Mbps connection
Orange	Linked	ORANGE	100Mbps connection
Blinking	Data activity	GREEN	1Gbps connection

4	AUDIO	Line-Out port (Lime)	This port connects a headphone or a speaker. In 4-channel, 6-channel, and 8-channel configuration, the function of this port becomes Front Speaker Out.
5	AUDIO	Microphone port (Pink)	This port connects a microphone.

Refer to the audio configuration table below for the function of the audio ports in 2, 4, 6, or 8-channel configuration.

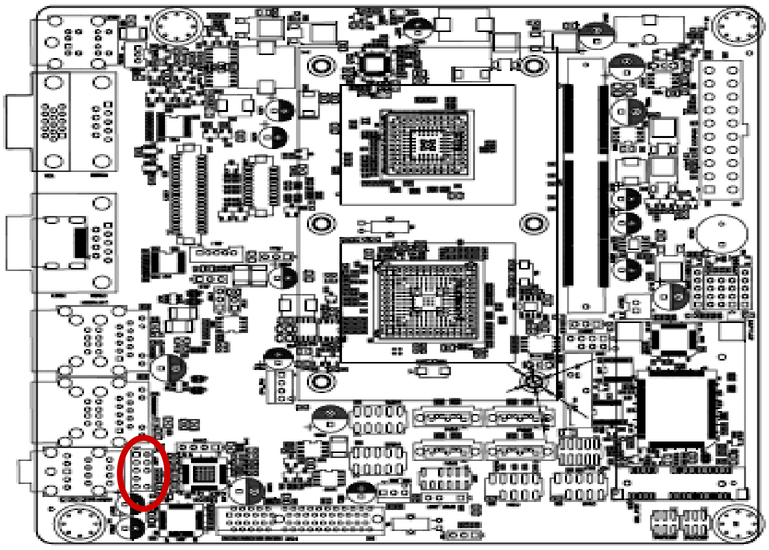
Port	Headset			
	2-channel	4-channel	6-channel	8-channel
Lime	Line out	Front speaker out	Front speaker out	Front speaker out
Pink	Mic In	Mic In	Mic In	Mic In

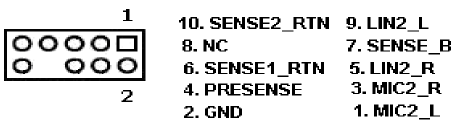
6	LAN_USB3, 4,5,6	USB 2.0 connector	These two 4-pin Universal Serial Bus (USB) ports are available for connecting USB 2.0 devices.
7	HDMI		
8	VGA_DVI	VGA port	This 15-pin port is for a VGA monitor or other VGA-compatible devices.
9	KBMS	PS/2 KB connector	This port is for a PS/2 keyboard

1.8.2 Front Panel Audio Connector (AAFP)

This connector is for a chassis-mounted front panel audio I/O module that supports either HD Audio or legacy AC '97 (optional) audio standard. Connect one end of the front panel audio I/O module cable to this connector.

Component type: HEADER 2X5P / 2.54mm



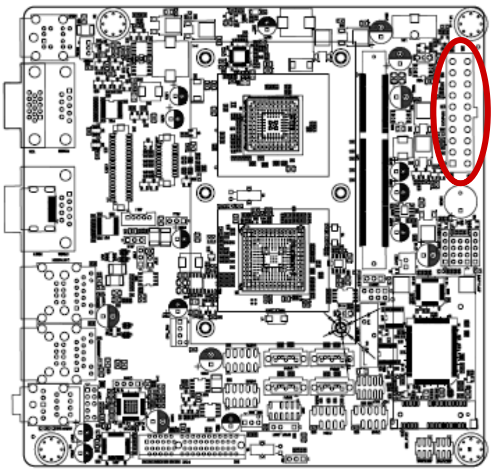


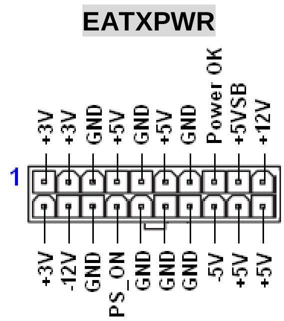


For motherboards with the optional HD Audio feature, we recommend that you connect a high-definition front panel audio module to this connector to avail of the motherboard's high-definition audio capability.

1.8.3 ATX Power Connector (ATXPWR)

These connectors are for ATX power supply plugs. The power supply plugs are designed to fit these connectors in only one orientation. Find the proper orientation and push down firmly until the connectors completely fit.



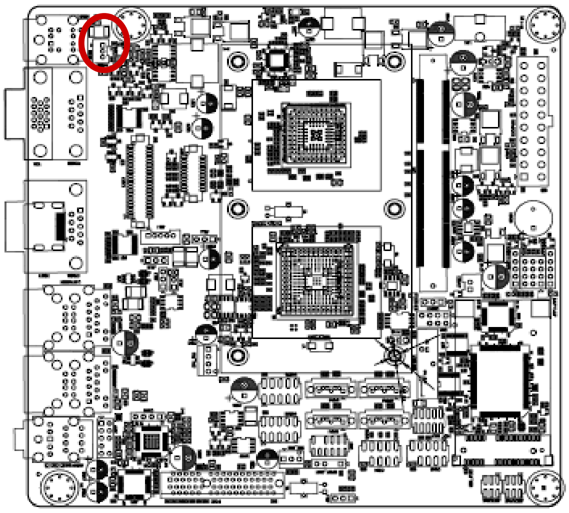


Important notes on the Motherboard Power Requirements



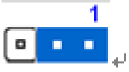
- Make sure that your ATX 12V power supply can provide 8A on the +12V lead and at least 1A on the +5-volt standby lead (+5VSB). The minimum recommended wattage is 230W, or 300W for a fully configured system. The system can become unstable and might experience difficulty powering up if the power supply is inadequate.
- You must install a PSU with a higher power rating if you intend to install additional devices.

1.8.4 AT/ATX Mode Select (PSON1)

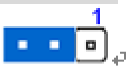




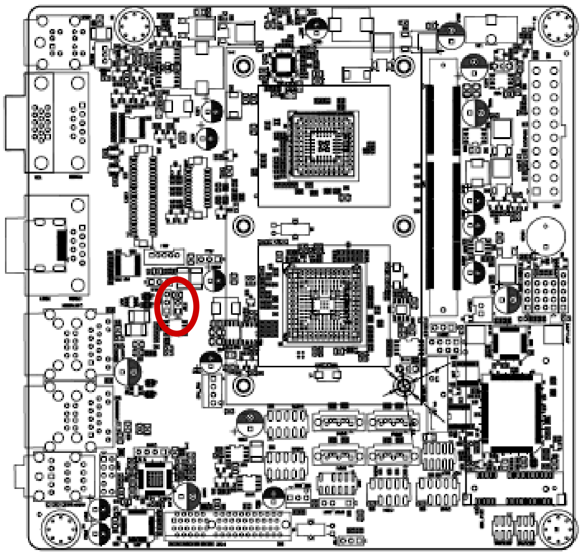
AT MODE



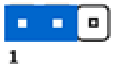
ATX MODE



1.8.5 LCD POWER (VDDSAFE) (JBL3)



3.3V

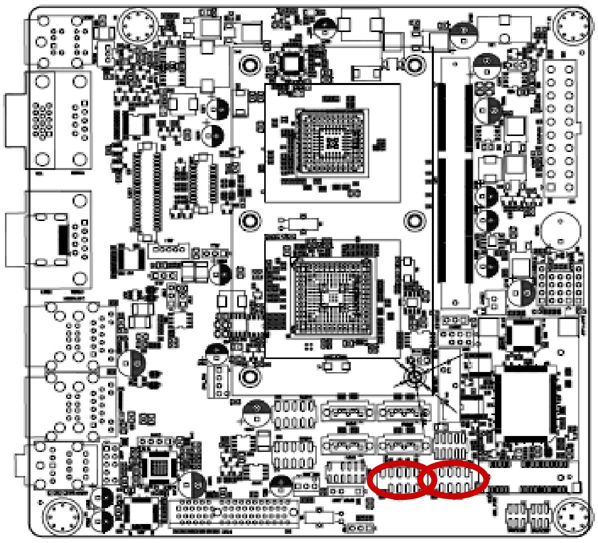


5V

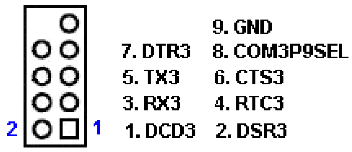


1.8.6 Serial Port Connector (COM3, COM4).

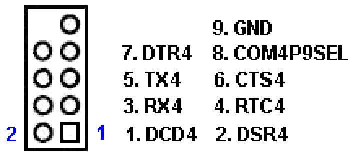
Component type: HEADER 2X5P /2.54mm, w/o Pin10



COM3

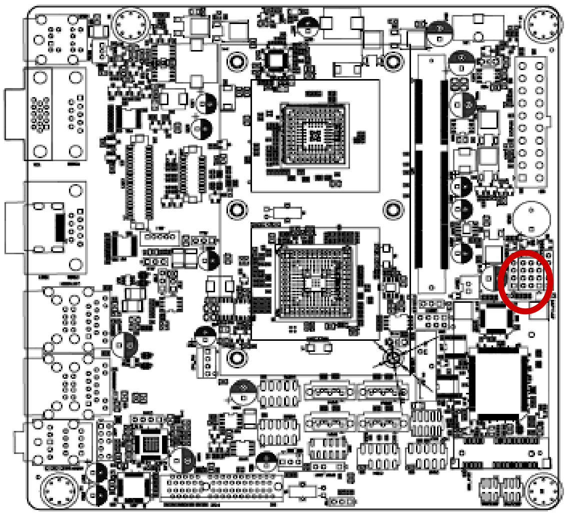


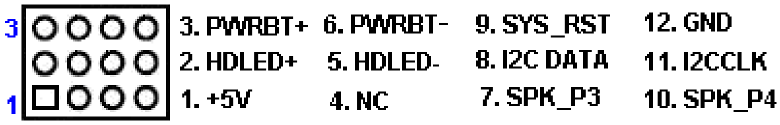
COM4



1.8.7 System Panel & Speaker (JFP1 + JFP2)

Component type: HEADER 4x3P /2.54mm

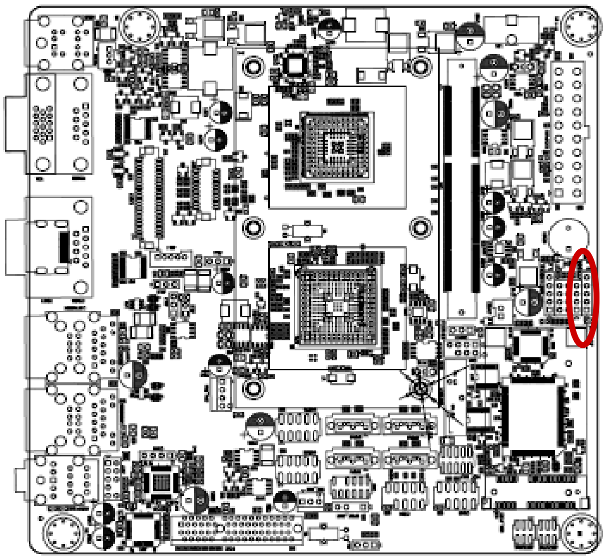


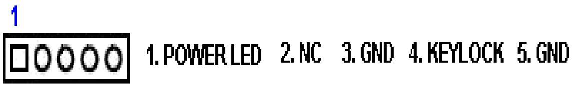


PIN7-10	Internal SPK	PIN3-6	POWER BT
PIN1-10	External SPK	PIN9-12	SYS_RESET

1.8.8 ower LED & Key lock (JFP3)

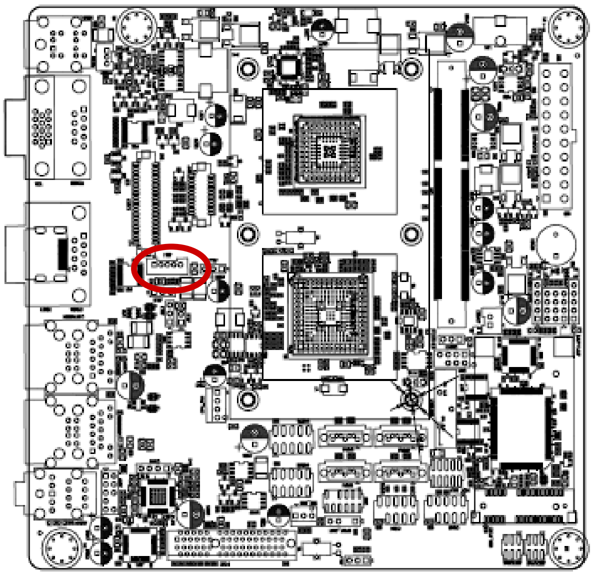
Component type: HEADER 1X5P /2.54mm

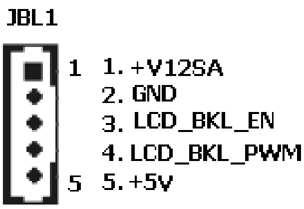




1.8.9 Inverter PWR (JBL1)

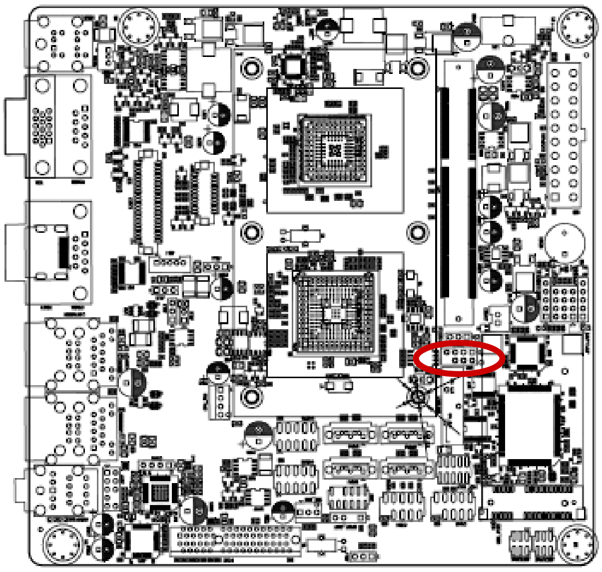
Component type: WAFER 1x5P / 2.0mm

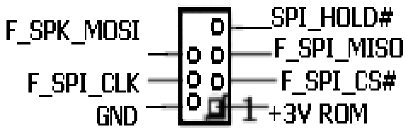




1.8.10 SPI connector (CN4)

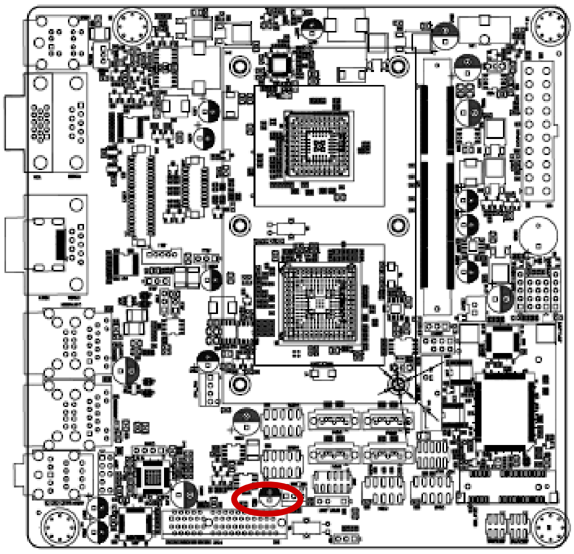
Component type: HEADER 2X4P /2.54mm

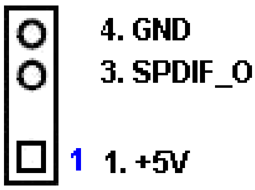




1.8.11 SPDIF OUT (SPDIF_OUT1)

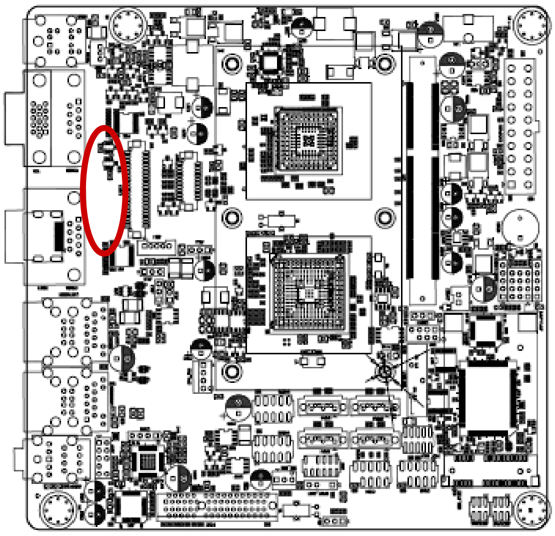
Component type: HEADER 1X4P /2.54mm



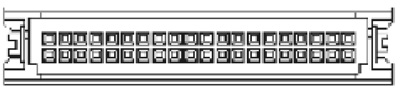


1.8.12 18-bit LVDS Connector (LVDS1)

Component type: HIROSE DF-13 /40P,1.25mm

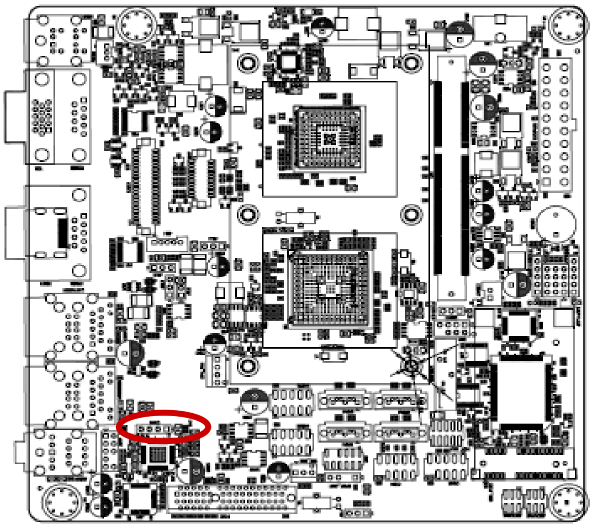


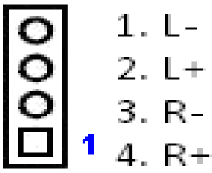
1.VDDSAFE	11.GND	21.LVDS_L2_P	31.LVDS_DDC_CLK
2.VDDSAFE	12.GND	22.NC	32.LVDS_DDC_DATA
3.GND	13.LVDS_L1_N	23.GND	33.GND
4.GND	14.NC	24.GND	34.GND
5.VDDSAFE	15.LVDS_L1_P	25.LVDS_CLK_N	35.NC
6.VDDSAFE	16.NC	26.NC	36.NC
7.LVDS_L0_N	17.GND	27.LVDS_CLK_P	37.NC
8.NC	18.GND	28.NC	38.NC
9.LVDS_L0_P	19.LVDS_L2_N	29.GND	39.LCD_BLK_EN
10.NC	20.NC	30.GND	40.VCON



1.8.13 AMP_R+R-/AMP_L+L- (CN10)

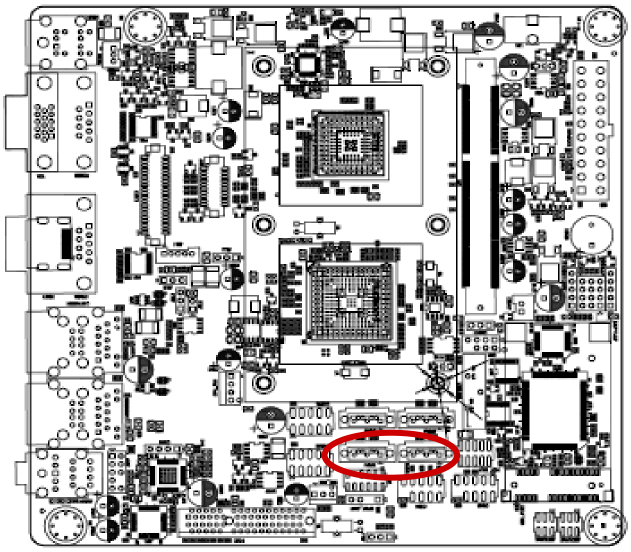
Component type: HEADER 1X4P /2.54mm



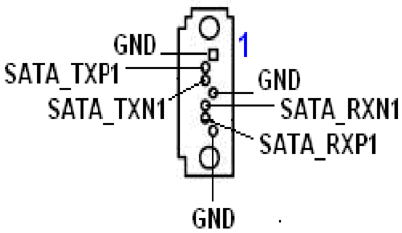


1.8.14 Serial ATA Connector (SATA1, SATA2)

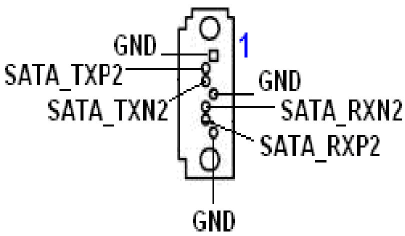
These connectors are for the Serial ATA signal cables for Serial ATA hard disk drives.



SATA1

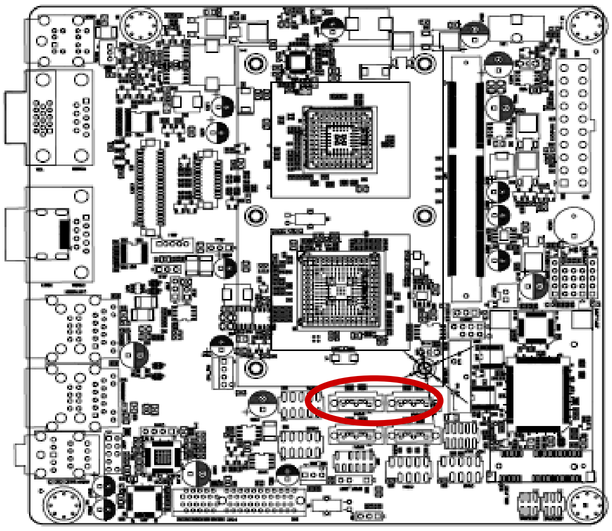


SATA2

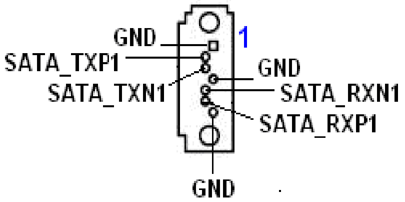


Serial ATA Connector (SATA3, SATA4)

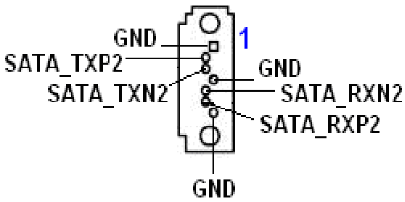
These connectors are for the Serial ATA signal cables for Serial ATA hard disk drives.



SATA3

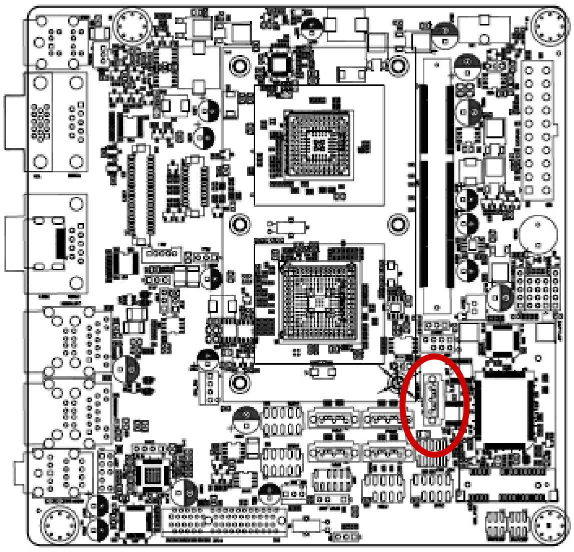


SATA4

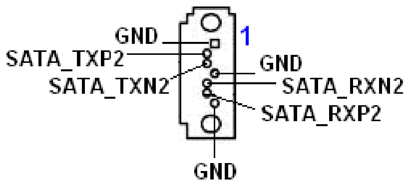


Serial ATA Connector (SATA5)

These connectors are for the SATADOM and Serial ATA signal cables for Serial ATA hard disk drives.



SATA5



Connect the right-angle side of SATA signal cable to SATA device. Or you may connect the right-angle side of SATA cable to the onboard SATA port to avoid Mechanical conflict with huge graphics cards.

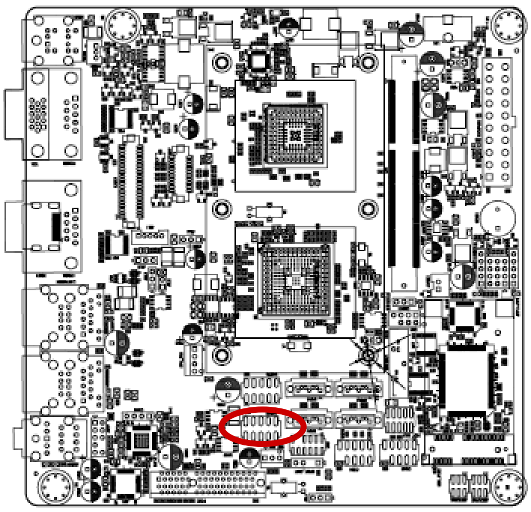


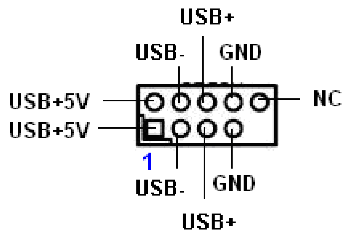
- Install the Windows® 2000 Service Pack 4 or the Windows® XP Service Pack1 before using Serial ATA.
- When using the connectors in Standard IDE mode, connect the primary (boot) hard disk drive to the SATA1 connector.

1.8.15 USB 2.0 Connector (USB5,6)

These connectors are for USB 2.0 ports. Connect the USB/GAME module cable to any of these connectors, then install the module to a slot opening at the back of the system chassis. These USB connectors comply with USB 2.0 specification that supports up to 480 Mbps connection speed.

Component type: HEADER 2X5P /2.54mm





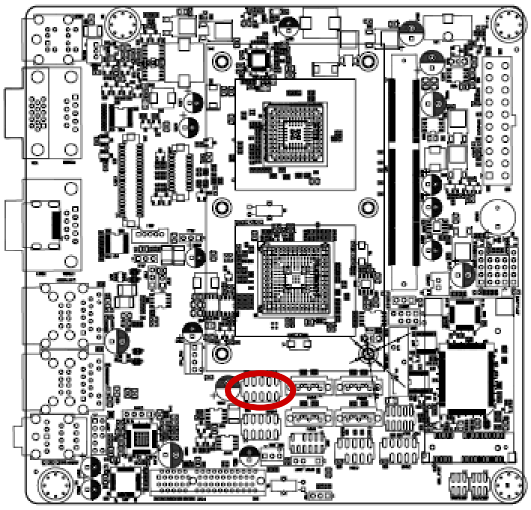
Never connect a 1394 cable to the USB connectors. Doing so will damage the motherboard!

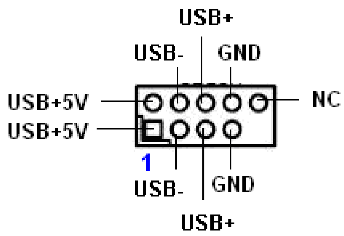
The USB module is purchased separately.

USB 2.0 Connector (USB7,8)

These connectors are for USB 2.0 ports. Connect the USB/GAME module cable to any of these connectors, then install the module to a slot opening at the back of the system chassis. These USB connectors comply with USB 2.0 specification that supports up to 480 Mbps connection speed.

Component type: HEADER 2X5P /2.54mm





Never connect a 1394 cable to the USB connectors. Doing so will damage the motherboard!

The USB module is purchased separately.

MEMO :

CHAPTER 2

BIOS Setup

2.1 BIOS Setup Program

This motherboard supports a programmable firmware chip that you can update using the provided utility. Use the BIOS Setup program when you are installing a motherboard, reconfiguring your system, or prompted to "Run Setup." This section explains how to configure your system using this utility.

Even if you are not prompted to use the Setup program, you can change the configuration of your computer in the future. For example, you can enable the security password feature or change the power management settings. This requires you to reconfigure your system using the BIOS Setup program so that the computer can recognize these changes and record them in the CMOS RAM of the firmware hub.

The firmware hub on the motherboard stores the Setup utility. When you start up the computer, the system provides you with the opportunity to run this program. Press <Del> during the Power-On-Self-Test (POST) to enter the Setup utility; otherwise, POST continues with its test routines.

If you wish to enter Setup after POST, restart the system by pressing <Ctrl + Alt + Delete>, or by pressing the reset button on the system chassis. You can also restart by turning the system off and then back on. Do this last option only if the first two failed.

The Setup program is designed to make it as easy to use as possible. Being a menu-driven program, it lets you scroll through the various sub-menus and make your selections from the available options using the navigation keys.

- The default BIOS settings for this motherboard apply for most conditions to ensure optimum performance. If the system becomes unstable after changing any BIOS settings, load the default settings to ensure system compatibility and stability. Select the Load Optimized Defaults from the BIOS menu screen.
- The BIOS setup screens shown in this section are for reference purposes only, and may not exactly match what you see on your screen.
- Visit the system builder's website to download the latest BIOS file for this motherboard

2.1.1 Legend Box

The keys in the legend bar allow you to navigate through the various setup menus

Key(s)	Function Description
←	Select Screen
↑ ↓	Select Item
+ -	Change Option / Field
Enter	Go to Sub Screen
PGDN	Next Page
PGUP	Previous Page
HOME	Go to Top of Screen
END	Go to Bottom of Screen
F2/F3	Change Colors
F7	Discard Changes
F8	Load Failsafe Defaults
F9	Load Optimal Defaults
F10	Save and Exit
ESC	Exit

2.1.2 List Box

This box appears only in the opening screen. The box displays an initial list of configurable items in the menu you selected.

2.1.3 Sub-menu

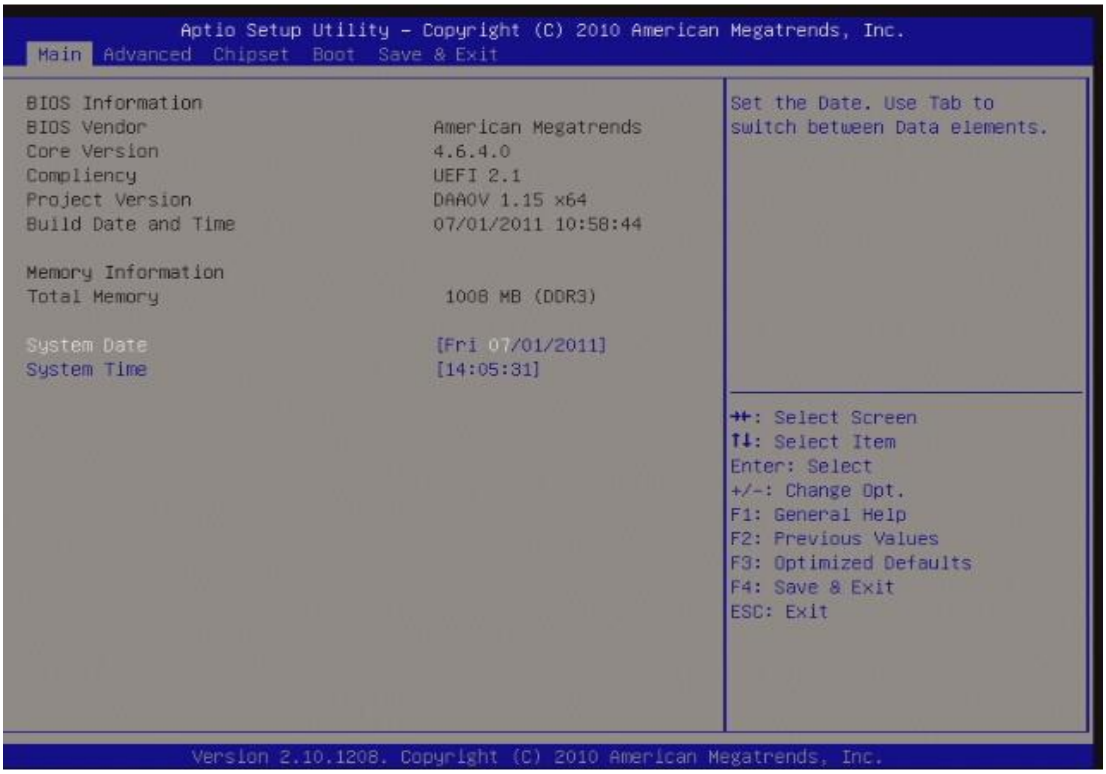
Note that a right pointer symbol (▶) appears to the left of certain fields. This pointer indicates that you can display a sub-menu from this field. A sub-menu contains additional options for a field parameter. To display a sub-menu, move the highlight to the field and press <Enter>. The sub-menu appears. Use the legend keys to enter values and move from field to field within a sub-menu as you would within a menu. Use the <Esc> key to return to the main menu.

Take some time to familiarize yourself with the legend keys and their corresponding functions. Practice navigating through the various menus and submenus. If you accidentally make unwanted changes to any of the fields, press <F6> to load the fail-safe default values. While moving around through the Setup program, note that explanations appear in the Item Specific Help window located to the right of each menu. This window displays the help text for the currently highlighted field.

2.2 BIOS Menu Screen

When you enter the BIOS, the following screen appears. The BIOS menu screen displays the items that allow you to make changes to the system configuration. To access the menu items, press the up/down/right/left arrow key on the keyboard until the desired item is highlighted, then press [Enter] to open the specific menu.

2.2.1 Main



2.2.1.1 Date [Day, xx/ xx/ xxxx]

The date format is <week>, <month>, <day>, <year>.

2.2.1.2 Time [xx : xx : xx]

The time format is <hour><minute><second>, based on the 24-hour clock.



2.2.2 Advanced



2.2.2.1 ACPI Setting

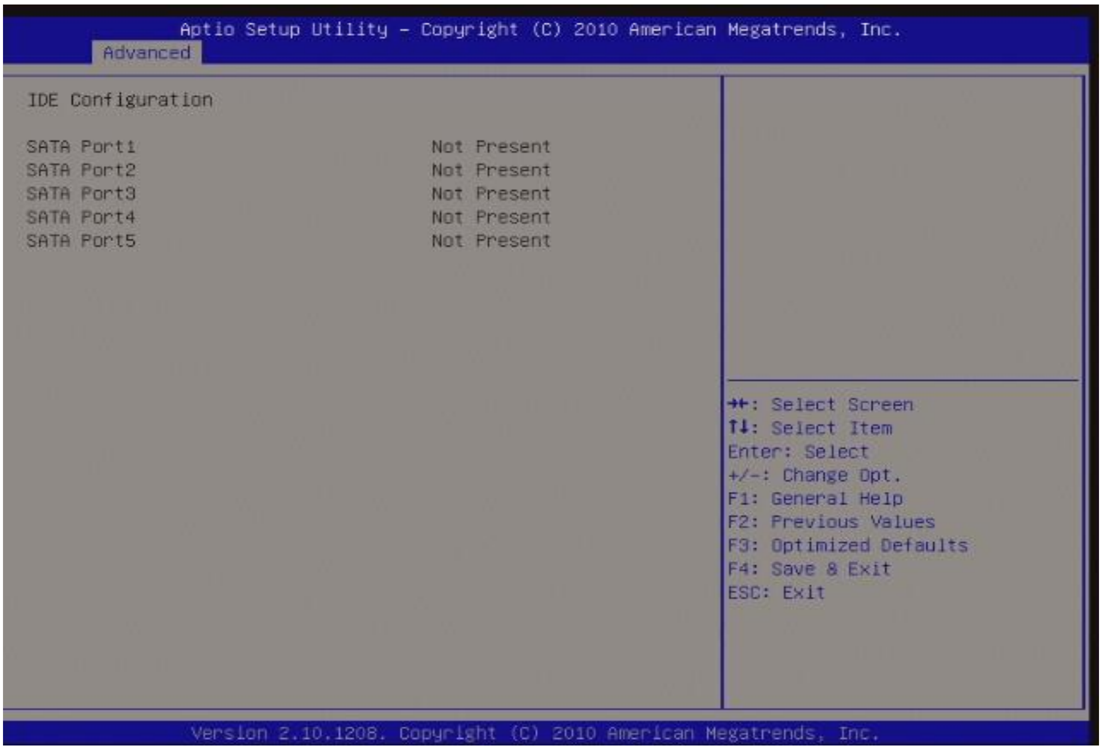


2.2.2.2 CPU Configuration



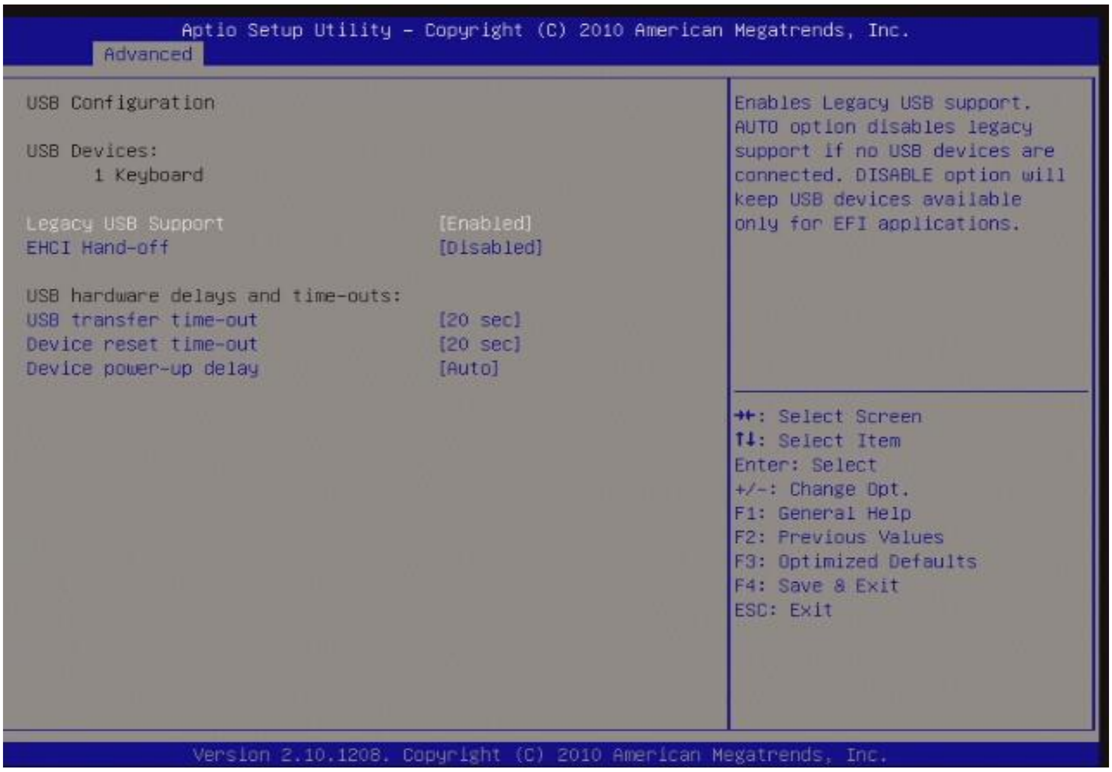


2.2.2.3 IDE Configuration



- SATA Port1
- SATA Port2
- SATA Port3
- SATA Port4
- SATA Port5

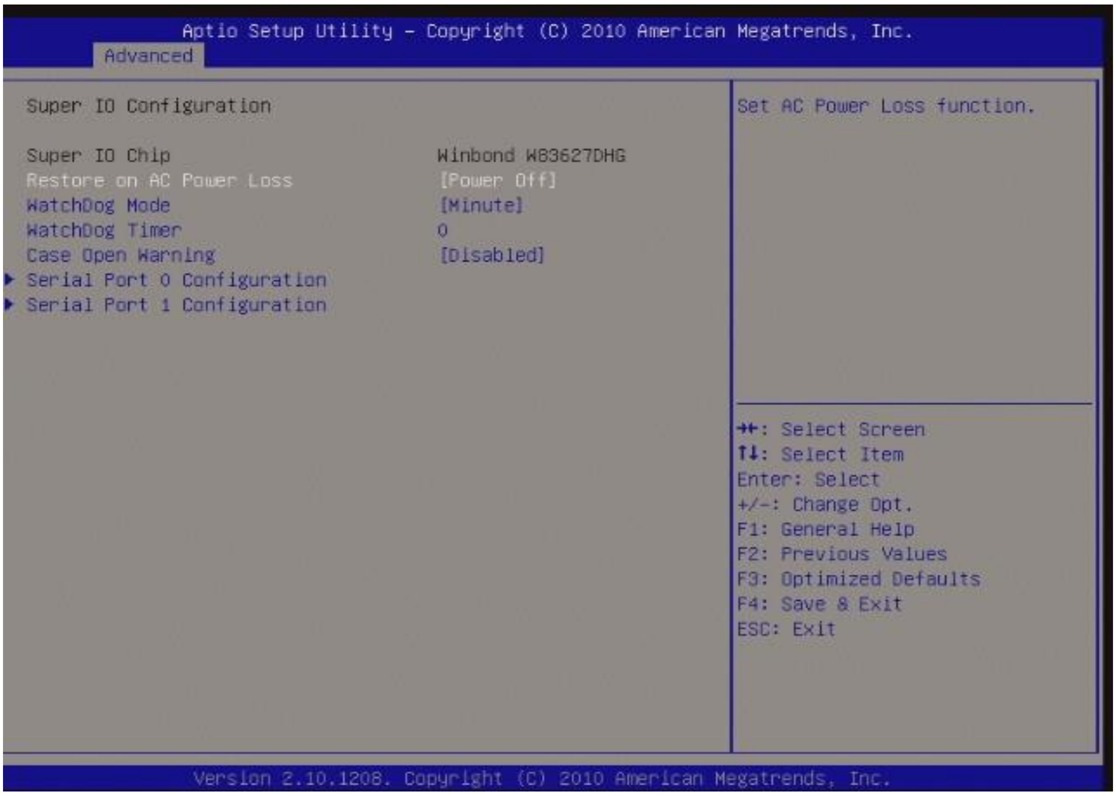
2.2.2.4 USB Configuration



2.2.2.5 Second Super IO Configuration



2.2.2.6 Super IO Configuration



2.2.2.7 H/W Monitor



2.2.3 Chipset

This category displays base memory, extended memory, and total memory detected during POST (Power On Self Test).



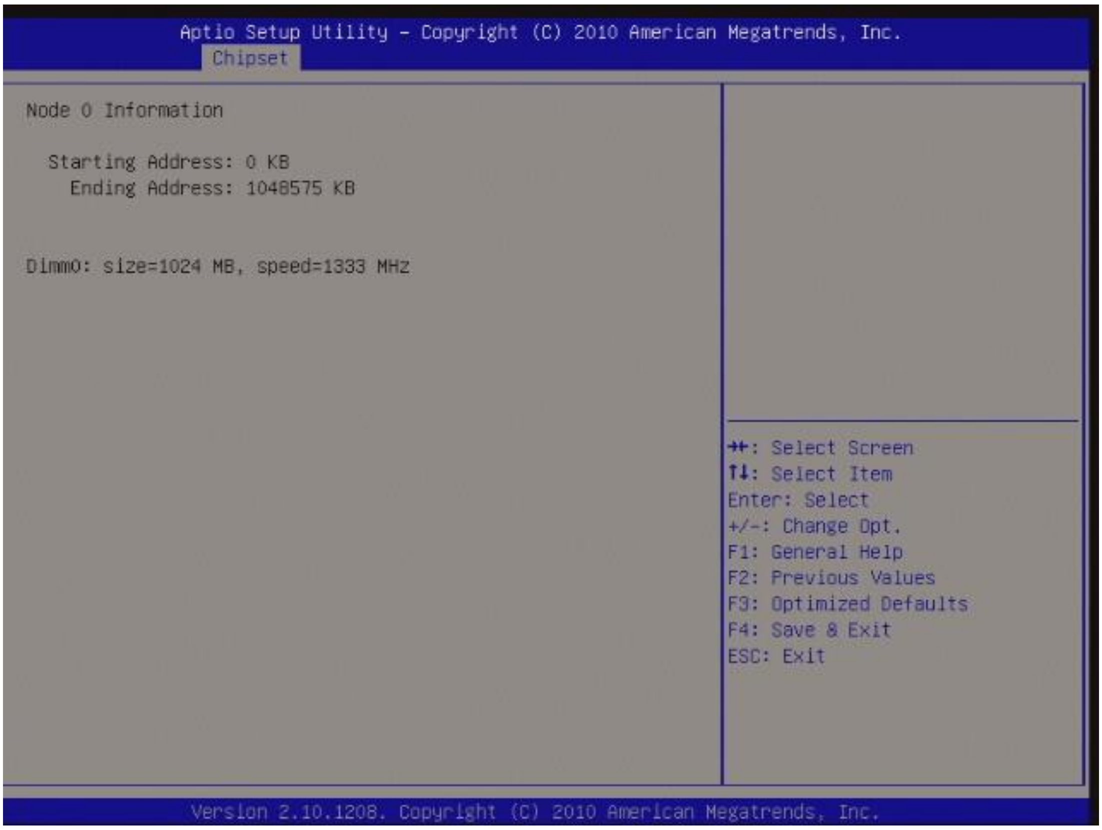
2.2.3.1 North Bridge



2.2.3.1.1 Memory Configuration



2.2.3.1.2 Node 0 Information



2.2.3.2 North Bridge LVDS Coning Select



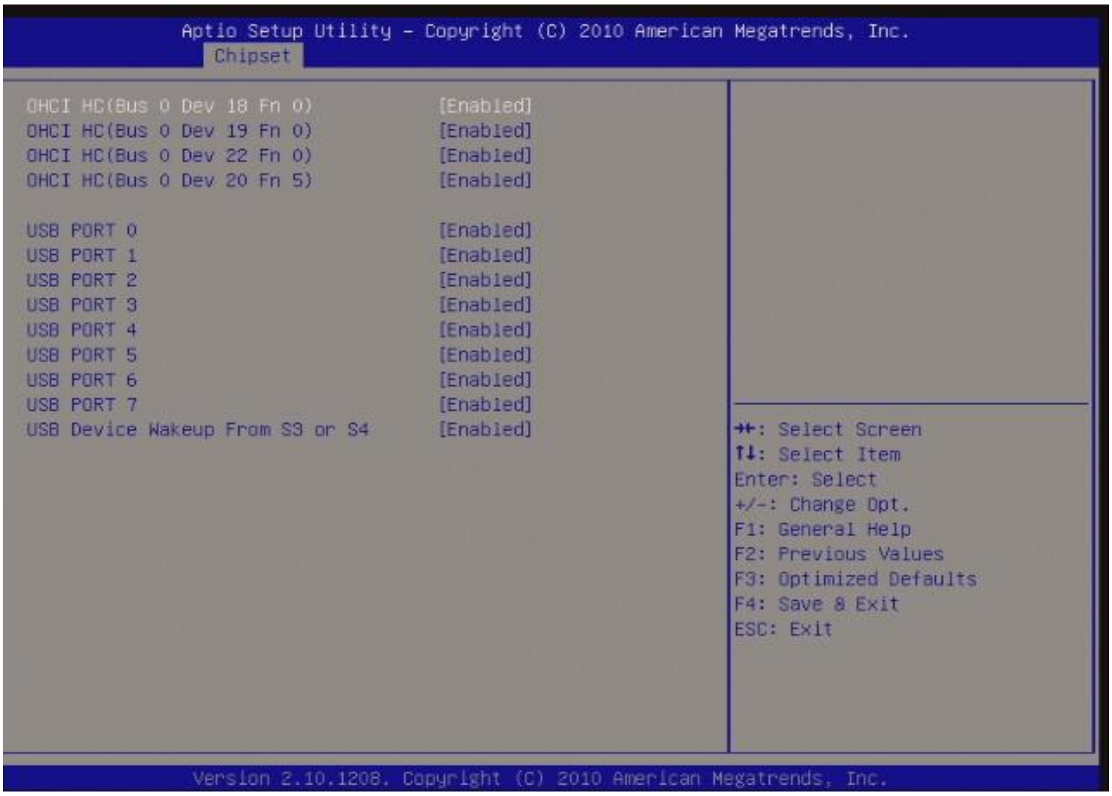
2.2.3.3 South Bridge



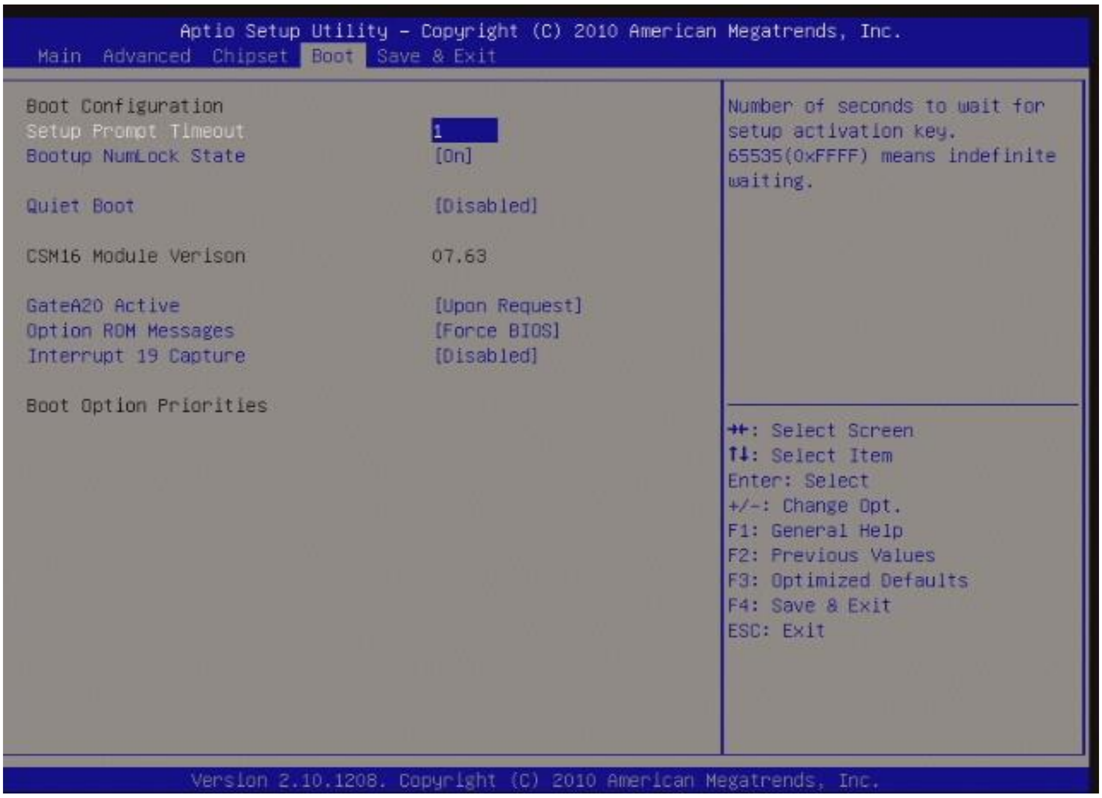
2.2.3.3.1 SB SATA Configuration



2.2.3.3.2 SB USB Configuration



2.2.4 Boot


Aptio Setup Utility – Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Boot Save & Exit
Boot Configuration
Setup Prompt Timeout
1
Bootup NumLock State
[On]
Quiet Boot
[Disabled]
CSM16 Module Verison
07.63
GateA20 Active
[Upon Request]
Option ROM Messages
[Force BIOS]
Interrupt 19 Capture
[Disabled]
Boot Option Priorities
Number of seconds to wait for setup activation key. 65535(0xFFFF) means indefinite waiting.
→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4: Save & Exit
ESC: Exit
Version 2.10.1208. Copyright (C) 2010 American Megatrends, Inc.

2.2.5 Save & Exit

